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Attorneys for Defendant Ford Motor Company

**IN THE UNITED STATES DISTRICT COURT  
DISTRICT OF ARIZONA**

Karen Elliott, an individual,  
Plaintiff,

v.

Ford Motor Company, a Delaware  
Corporation, TRW Automotive Holdings  
Corp., a Delaware Corporation; and Autoliv  
Inc., a foreign corporation,

Defendants.

No. CV 2004 0902 PHX SRB

**FORD MOTOR COMPANY'S  
MOTION TO EXCLUDE  
OPINIONS OF GEOFFREY  
MAHON UNDER DAUBERT**

**(Oral Argument Requested)**

(Honorable Susan R. Bolton)

Defendant Ford Motor Company ("Ford") hereby moves this Court to grant its motion to exclude opinions of Geoffrey Mahon because: 1) Mahon's opinions are not based on any scientific methods and principles; and 2) Mahon has done no testing. Therefore, Mahon's opinions will not assist the trier of fact. This Motion is supported by the accompanying Memorandum of Points and Authorities which is incorporated by reference herein.

DATED this 31<sup>st</sup> day of July, 2006.

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**MEMORANDUM OF POINTS AND AUTHORITIES**

**I. BACKGROUND**

**A. ACCIDENT FACTS**

This is an action arising from a May 21, 2002 crash that occurred while plaintiff Karen Elliott was driving a 1996 Ford Contour on her way to work on Bethany Home Road in Phoenix. Plaintiff failed to slow down in a school zone and crashed into the back of a 2001 Blazer.<sup>1</sup> See Arizona Traffic Accident Report, attached as Exhibit A. In the crash, the frontal airbags deployed in the Contour. Plaintiff sustained injuries which she alleges came from the deployment of the driver's airbag.

**B. PLAINTIFF'S CLAIMS**

Plaintiff sued Ford Motor Company for her injuries alleging four causes of action: strict liability, negligence, breach of warranty, and punitive damages. See Complaint. To support her claims, plaintiff disclosed Geoffrey Mahon, as the sole expert who, if permitted, will testify that the airbag sensing system is defective. The only criticism that Mahon has is that the addition of the dwell enhancer to the airbag sensing system in the Contour renders it defective in design because it allowed for an airbag deployment in an accident where the crash severity was below the "no-fire" threshold. See Geoffrey Mahon's Deposition Transcript, p. 16:7-11, attached as Exhibit B. However, Mahon acknowledges that he is not critical of: 1) the placement of the sensors; 2) the sensor componentry; 3) the specifications for the fire and no-fire thresholds; 4) the sensor calibration; or 5) the aggressivity of the airbag. Exhibit B, pp. 111:20-25, 145:3-14, 148:12-16, and 134:11-15. Mahon admits that the sensors in the Contour met Ford's

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<sup>1</sup> Plaintiff claims that she may have blacked out causing her vehicle to crash into the Blazer. The police officer cited plaintiff for failure to control vehicle speed to avoid collision. See Officer Glenn Larson's Deposition Transcript, p. 12:5-10, attached as Exhibit C.

1 specifications and that there is no evidence of a manufacturing claim. Exhibit B, pp.  
2 95:25-96:5 and 167:25-168:6. Indeed, he admits that the sensors in the subject vehicle  
3 passed the tests at the time the vehicle was manufactured and that they would pass the  
4 tests today. Exhibit B, p. 96:9-21. Additionally, Mahon will not testify that the airbag  
5 deployed late. Exhibit B, p. 135:10-15. He also acknowledges the vehicle passed all of  
6 the applicable Federal Motor Vehicle Safety Standards including the airbag standard  
7 FMVSS 208. Exhibit B, pp. 151:13-24 and 152:17-23.

8 The parties agree that the airbag sensing system in the 1996 Contour is  
9 designed to deploy in certain frontal crashes. In simplistic terms, the sensing system is  
10 designed for a “non-airbag deployment” in an impact speed of 8 miles per hour or less.  
11 The airbag “may” deploy if the impact speed is greater than 8 miles per hour and below  
12 the 14 mile per hour “must” deploy threshold. In this case, Mahon is relying on plaintiff’s  
13 accident reconstruction expert opinion of Mike Shepston that plaintiff rear ended the  
14 Blazer at an 8 mile per hour speed with a change in velocity (Delta-V) in the Contour of  
15 5 miles per hour.<sup>2</sup> Exhibit B, p. 216:16-217:1. Mahon opines that the airbag should not  
16 have deployed in a crash with a 5 mile-per-hour Delta V. Mahon opines that the sole  
17 reason the airbag deployed when it should not have is because of the addition of the  
18 dwell enhancer. Exhibit B, pp. 16:7-11.

19 The dwell enhancer was added to the Contour and to other vehicles as part of the  
20 airbag sensing system because “it improves the overall reliability of the system. It  
21 enhances, or increases, the dwell time of the discriminating sensors in certain crash  
22 scenarios to assure that the signal to deploy is appropriately sent to the airbag module.”  
23 See David Bauch’s Report, attached as Exhibit D.

24 **II. MAHON’S OPINIONS ARE INADMISSIBLE BECAUSE THEY ARE**  
25 **UNRELIABLE UNDER DAUBERT**

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26  
27 <sup>2</sup> Although none of plaintiff’s experts conducted a crash test to determine plaintiff’s speed at the time of  
28 impact, Ford conducted two crash tests of the same make and model vehicles involved in the subject crash.  
These crash tests demonstrate that the subject vehicle’s impact speed was, at a minimum, in the “may-  
deploy” zone and therefore the airbag deployed as designed.

1 The Supreme Court decided in Daubert v. Merrell Dow Pharm., Inc., 509 U.S.  
2 579 (1993), that Federal Rule of Evidence 702 mandates that trial judges act as  
3 gatekeepers to the introduction of scientific or otherwise specialized testimony to  
4 “ensure that any and all scientific testimony or evidence admitted is not only  
5 relevant, but reliable.” Id. at 588. In Daubert, the Supreme Court set out the  
6 relevant standard by which courts should determine whether to admit expert  
7 testimony into evidence. The Court held that the guiding factors in this determination  
8 are whether the expert testimony reflects “(1) scientific knowledge that (2) will assist  
9 the trier of fact to understand or determine a fact in issue.” 509 U.S. at 592. The  
10 Court also set forth a checklist for trial courts to use in assessing the reliability of  
11 expert testimony. The specific factors explicated by the Court were:

- 12 (1) whether the expert’s technique or theory can be or has been  
13 tested—that is, whether the expert’s theory can be challenged in  
14 some objective sense, or whether it is instead simply a subjective,  
conclusory approach that cannot reasonably be assessed for  
reliability;
- 15 (2) whether the technique or theory has been subject to peer review  
16 and publication;
- 17 (3) the known or potential rate of error of the technique or theory  
when applied;
- 18 (4) the existence and maintenance of standards and controls; and
- 19 (5) whether that technique or theory has been generally accepted in  
20 the scientific community.

21 Daubert, 509 U.S. at 593-594.

22 The Daubert rule requires this Court to focus its inquiry on the “principles and  
23 methodology underlying the expert’s testimony, not on the conclusion.” Kennedy v.  
24 Collagen Corp., 161 F.3d 1226, 1228 (9th Cir.1998). Such testimony must also be  
25 “based upon sufficient facts or data,” be “the product of reliable principles and  
26 methods,” and it must be shown that “the witness has applied the principles and  
27 methods reliably to the facts of the case.” Fed. R. Civ. Pro. 702.  
28

1 As the Supreme Court cautioned in Daubert, trial courts “must recognize that  
2 due to the difficulty in evaluating their testimony, expert witnesses have the potential  
3 to be both powerful and misleading.” 509 U.S. at 595. Therefore, a trial judge,  
4 faced with a proffer of expert testimony, must conduct “a preliminary assessment of  
5 whether the reasoning or methodology underlying the testimony is scientifically valid  
6 and of whether that reasoning or methodology properly can be applied to the facts in  
7 issue.” Cooper v. Smith & Nephew, Inc., 259 F.3d 194, 199 (4th Cir. 2001)(quoting  
8 Daubert, 509 U.S. at 595). The testimony may not be based or rely upon  
9 “unsupported speculation and subjective beliefs” as it would lack any indicia of  
10 reliability, and work against the objective of Rule 702 that the testimony assist the  
11 trier of fact in understanding the facts and issues in the case. Guidroz-Brault v.  
12 Missouri Pac. R. Co., 254 F.3d 825, 829 (9th Cir. 2001); see also Ruffin v. Shaw  
13 Indus., Inc., 149 F.3d 294, 297 (4th Cir. 1997). The proponent of the testimony has  
14 the burden of establishing by a preponderance of proof that the testimony is  
15 relevant, reliable, helpful, and not based upon speculation or unsupported opinion.  
16 Id.

#### 17 **A. Mahon Has Done No Testing To Support His Opinions**

18 The majority of circuits view testing as the most significant Daubert factor and  
19 have excluded testimony not supported by meaningful testing and evaluation. See,  
20 e.g., Bogosian v. Mercedes-Benz of North America, Inc., 104 F.3d 472 (1<sup>st</sup> Cir.  
21 1997) (affirming exclusion of plaintiff’s expert’s theory for failing to properly conduct  
22 thorough testing and evaluation of his hypothesis); Watkins v. TelSmith Inc., 121  
23 F.3d 984 (5<sup>th</sup> Cir. 1997) (excluding plaintiff’s engineering expert who advocated an  
24 alternative design to a conveyor because he had failed to adequately test it);  
25 Cummins v. Lyle Industries, 93 F.3d 362, 369 (excluding plaintiff’s engineering  
26 expert who advocated an alternative design for a trim press for his failure to  
27 adequately test his theories); Weisgram v. Marley Co., 169 F.3d 514 (8<sup>th</sup> Cir. 1999)  
28 (rejecting plaintiff’s well-qualified metallurgy expert for failure to test his hypothesis).

1 Mahon's opinions should be excluded because he failed to employ any  
2 methodology, protocol, testing, analysis, or anything that is recognized by the  
3 relevant scientific community. See, e.g., Deimer v. Cincinnati Sub-Zero Products,  
4 Inc., 58 F.3d 341 (7th Cir. 1995) (affirming exclusion of expert on cause of accident  
5 because his opinions "were unsupported by any scientific method").

6 Mahon admitted that he has done no testing, computer modeling, or sled  
7 testing whatsoever to support his opinion that the addition of a dwell enhancer  
8 caused the airbag to deploy when it should not have deployed in this accident.<sup>3</sup>  
9 When asked about testing, Mahon testified to the following:

10  
11 Q. Just to get back to this, just to be clear, you did not do any  
12 testing to determine whether the air bag would not have deployed  
13 under the circumstances of this accident if there was no dwell  
enhancer, correct?

14 . . .

15 A. I did no testing . . .

16 Q. Okay. Did you do any computer modeling of the air bag system  
17 or any of its component parts to determine whether the air bag would  
18 not have deployed under the circumstances of this accident if there was  
no dwell enhancer?

19 . . .

20  
21 A. I may have in the 1994 time frame, but I don't remember.

22 . . .

23 Q. To be clear, you're not aware of any computer modeling that  
24 replicates the circumstances of this accident which would determine  
25 whether a – the absence of a dwell enhancer would cause the air bag  
not to deploy, correct?

26 A. I think that's correct.  
27

28 <sup>3</sup> In car to car vehicle crashes such as the subject crash, the dwell enhancer "does not affect whether or not the airbag will deploy." Exhibit D, David Bauch's Report.

1 Q. Have you done any sled testing for this case or that Rodriguez  
2 case?

3 A. You know, I don't own a sled, and I also answered that I haven't  
4 done any testing for this case.

5 Q. Okay. I want to make sure that you understand that meant both  
6 crash tests and sled test.

7 A. I thought that meant any kind of test because you didn't specify.

8 Q. You haven't done any tests specifically to this – the  
9 circumstances of this accident or this case, correct?

10 A. That's correct.

11 Exhibit A, p. 38:12-41:12. Mahon also admitted that there are no tests out  
12 there done by anyone else that support his theory in this case. Exhibit A, p. 62:5-15.  
13 Indeed, Mahon testified to the following:

14  
15 Q. So, tell me and identify the test that proves that had there been  
16 no dwell enhancer in this air bag system under the circumstances of  
17 this accident, that the air bag would not have deployed. Identify it  
however you want to do it, test number or type, et cetera.

18 A. That question was asked and answered, and I said there was no  
19 test that specifically covered this event, and that was my previous  
testimony.

20 Exhibit B, p. 62:5-15. Therefore, Mahon's opinion is nothing more than  
21 untested speculative opinion.

22 **B. Mahon's Theory Has Not Been Subject To Peer Review And**  
23 **Publication**

24 Mahon's theory or techniques have not been peer reviewed. Mahon  
25 presented no evidence that his theories about the dwell enhancer are generally  
26 accepted in the scientific community. Indeed, Mahon has not prepared any papers  
27 to be peer reviewed. He could not identify any publications to support his opinions.  
28 When asked about any papers, Mahon testified:

1 Q. Is there literature that you intend to rely on to support your  
2 opinions in this case?

3 A. I don't believe there is literature that I intend to [rely on] to  
4 support my opinions in this case.

5 . . .

6 Q. Do you have any documentation that proves that had the dwell  
7 enhancer not been part of the air bag system, this air bag would not  
8 have deployed in the accident Ms. Elliott was involved in?

9 A. I don't believe any such documentation exists since I already  
10 testified that no one did any testing that duplicates this accident, and I  
11 presume that would be the only documentation you would accept as  
"proof," in quotes.

12 Exhibit B, pp. 9:16-21 and 41:15-25. Indeed, Mahon admitted that he is "not  
13 aware of any such literature" that supports his opinion that the addition of a dwell  
14 enhancer renders the airbag system defective and unreasonably dangerous. Exhibit  
15 B, pp. 88:23-89:4. Moreover, Mahon admitted that, although he could have, he did  
16 not file a petition with the National Highway Transportation Safety Administration  
17 ("NHTSA"), the agency that oversees automobile safety, regarding his concerns in  
18 regards to the airbag system in the 1996 Contour. Exhibit B, pp. 162:24-163:3 and  
19 163:24-164:8. Indeed, Mahon has never petitioned NHTSA to force Ford to remove  
20 the dwell enhancer on any of its airbag systems. Exhibit B, p. 164:9-13. Mahon did  
21 not produce any evidence whatsoever that NHTSA had any concerns regarding the  
22 addition of a dwell enhancer to the airbag system. Exhibit B, pp. 164:14-166:14.

23 Factors three and four of Daubert's checklist regarding the rate of error and  
24 the existence and maintenance of standards and control are not relevant because  
25 Mahon used no methodology or science to relate to this case.

26 . . .

27 . . .



1                   **C.     Mahon Relies On Himself And No One Else For His Opinions**

2           An expert's own "self proclaimed accuracy" is insufficient to support his  
3 testimony. General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997). Accordingly, the  
4 expert's methodology should tie his opinions to the evidence by a specific train of  
5 scientific evidence pointing to a defect. Indeed, Rule 702 was amended to require  
6 that an expert's opinions be based on "sufficient facts or data." Fed. R. Evid. 702(1).  
7 This amendment states the obvious – baseless and unsupported opinions are not  
8 helpful to the trier of fact and are therefore inadmissible. General Elec. Co. v.  
9 Joiner, 522 U.S. 136, 146 (1997) ("nothing in either Daubert or the Federal Rules of  
10 Evidence requires a district court to admit opinion evidence which is connected to  
11 existing data only by the ipse dixit of the expert."). Mahon's testimony fails all of the  
12 criteria for admissibility. Mahon's proof that the Contour's airbag system would not  
13 have deployed without the addition of the dwell enhancer in this crash, is himself  
14 and only himself. Indeed, Mahon testified:

15           Q. . . . Do you have any proof that the – had this 1996 Ford Contour  
16 air bag system not had a dwell enhancer, that the air bag would not  
17 have deployed under the circumstances of this accident?

18           A. Well, my industry -- . . . my industry experience and background  
19 of designing sensor systems allows me to offer the opinion that beyond  
20 or that to a reasonable engineering of certainty, it would not have . . . .

21           Exhibit B, p. 42:6-18. Indeed, Mahon claims that his own personal experience  
22 in the industry and background allows him to offer such opinion—even though no  
23 one else supports it.<sup>4</sup> Exhibit B, p. 42:6-18. This is the type of ipse dixit that courts  
24 preclude. Mahon's opinions are simply based on subjective beliefs and

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25           <sup>4</sup> Mahon claims that one person, Chris Caruso, an employee of Delco Electronics, **may** have said back in  
26 the 1993 year frame when he worked at Delphi, although he did not do any testing, that the addition of the  
27 dwell enhancer is a bad idea. Exhibit B, pp. 90:19-91:15 and 92:17-21. Mahon testified that he is under the  
28 "impression" that Dr. Ralph Hensler would agree with him that the addition of the dwell enhancer is a bad  
idea. Exhibit B, pp. 170:21-171:8 and 172:3-5. Although Mahon has not spoken to Dr. Castelli or Dr. Breed  
regarding the dwell enhancer, he **presumes** that they would agree that the dwell enhancer is a bad idea.  
Exhibit B, p. 172:16-22. Mahon acknowledges that a "bad idea" is different than "defective and  
unreasonably dangerous." Exhibit B, p. 90:8-18.

1 unsupported speculation and therefore unreliable. Mahon is not able to identify one  
2 person who stated, formally or informally, that the addition of a dwell enhancer  
3 renders the airbag system defective and unreasonably dangerous. Exhibit B, pp.  
4 89:13-90:18.

5 Even if Mahon was qualified in the area of airbag sensing systems, his  
6 opinions in this case are mere speculation and unreliable. Plaintiff failed to show  
7 that Mahon used a reliable methodology (or any methodology). Plaintiff has no  
8 evidence that the airbag in the 1996 Ford Contour would not have deployed but for  
9 the addition of the dwell enhancer. Mahon has not done a thorough testing or any  
10 testing on a 1996 Contour, or any vehicle with similar sensing design, to  
11 demonstrate that the airbag would not have deployed under the circumstances of  
12 this crash if there was no dwell enhancer in the system. Exhibit B, p. 36:3-14.  
13 Because Mahon's opinions are unreliable and mere speculation, Mahon should be  
14 excluded from giving opinions in this matter. Without competent evidence rendering  
15 a product unreasonably dangerous, summary judgment is appropriate.

16 **III. CONCLUSION**

17 For the foregoing reasons, Ford requests this Court to grant its Motion to  
18 Exclude Geoffrey Mahon under Daubert.

19 DATED this 31<sup>st</sup> day of July, 2006.

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## CERTIFICATE OF SERVICE

I hereby certify that on the 31st day of July, 2006 I caused the attached document to be electronically transmitted to the Clerk's Office using the CM/ECF System for filing and transmittal of a Notice of Electronic Filing to the following CM/ECF registrant:

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